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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/615,764
Filing Date: July 09, 2003
Appellant(s): PARRY ET AL.

Philip S. LYREN
(Reg. No. 40709)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 9, 2003 appealing from the Office action mailed March 4, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2002/0116480	Muto	2/2002
6735399	Tab	5/2002

2003/0107762	Kinoshita	12/2002
6831755	Narushima	6/1999
2003/0214546	Hatasa	4/2002
6532351	Richards	10/2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 & 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto(US 2002/0116480) , and Tabb (US 6735399 B2) , Kinoshita(2003/0107762) in view of Kurtz (2002/0075500),

Regarding claim 1, Muto teaches a method of providing email messages to a printing device, ***(Muto discloses the present invention has been developed to solve the above mentioned problems, and the first object of the present invention is to provide a data transfer process apparatus, a device, a network system, a data transfer method, and a storage medium capable of having the user who manages the device recognize the status of the device at an appropriate timing by***

transmitting by electronic mail the transmission data generated according to the message for the status information about the device based on the status change of the device and the destination information; Page 1 paragraph 10) said method comprising attaching a memory module storing said email messages to a printing device consumable.

Muto does not specifically teach method comprising attaching a memory module storing said email messages to a printing device consumable.

However Tabb does teach a method comprising attaching a memory module storing said code to a printing device consumable.

(Tab discloses this invention can also be used to change machine setup and aging algorithms to solve problems post-launch which may or may not be related to the particular CRU 1 which contains the CRUM 30. For example, a toner cartridge CRUM may provide the above described software code updates for the operation of a CRU 1. This is quite desirable as toner cartridges are typically replaced much more often than printer cartridges. Thus, a post-launch software update or upgrade can be resident in a machine 100 at a much earlier time than if it was distributed by a less often replaced CRU 1; Column 6 lines 7-16)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system to include the replaceable consumable printing device with memory of Tabb. One of ordinary skill in the art would have been motivated to make this modification in order to have a more efficient and direct way to make software upgrades to deal with errors, toner/printer problems, manufacturer

information changes of both printer and printing device consumables, without having to make a physical visit by a technician.

Tabb discloses many machines have replaceable sub-assemblies. Printing machines for example may have a number of replaceable sub-assemblies such as a fuser print cartridge, a toner cartridge, or an automatic document handler. These subassemblies may be arranged as a unit called a cartridge, and if intended for replacement by the customer or machine owner, may be referred to as a CRU. Examples of a CRU may include a printer cartridge, toner cartridge, or transfer assembly unit. It may be desirable for a CRU design to vary over the course of time due to manufacturing changes or to solve post launch problems with either: the machine, the CRU, or a CRU and machine interaction. Further, design optimizations may be recognized subsequent to design launch and machine sale, that a relatively simple code update might realize. However, solving these problems, or providing optimization updates, generally requires a field call; Column 1 lines 41-47)

uploading said email messages from the memory module of the printing device consumable to the printing device; and transmitting said email messages from the printing device to a recipient to indicate a condition relating to the printing device.

Neither Mutto nor Tabb explicitly discloses emails being stored on a memory module.

However Kinoshita teaches emails being stored on memory. **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an**

e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)

Further it would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system and Tab's replaceable consumable printing device with memory to include Kinoshita's Printing system. One of ordinary skill in the art would have been motivated to make this modification in order to show emails can be stored in a removable/remote memory and transmitting email to a printer's memory. This will allows for easier printing of emails at any given time.

Mutto, Tabb, nor Kinoshita explicitly discloses uploading said email messages from the memory module of the printing device consumable to the printing device; and transmitting said email messages from the printing device to a recipient to indicate a condition relating to the printing device.

However the combination with Kurtz does teach uploading said email messages from the memory module of the printing device consumable to the printing device; and transmitting said email messages from the printing device to a recipient to indicate a condition relating to the printing device. ***(Kurtz does teach in embodiments of the present invention, various methods and systems are envisioned. For example, the memory storage device may include a contact for ordering a replacement CRU and the printing machine may print a document including at least the identification code of the CRU and a contact for ordering a replacement CRU upon a condition in the CRU. The printing machine may send an electronic mail message including at least one of the identification code of the CRU and a contact for ordering a replacement CRU to a computer. The CRU may be a toner cartridge and the memory storage device may include a contact for ordering a replacement toner cartridge and the printing machine may print a document including at least the identification code of the toner cartridge and a contact for ordering a replacement toner cartridge. The printing machine may print a document including a URL address for electronic ordering of a CRU; or a URL address for obtaining instructions on obtaining a replacement CRU; Paragraph 46)***

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb and Kinoshita to include Kurtz's replaceable consumable printing device system which can also send email notifications. One of ordinary skill in the art would have been motivated to make this modification in order to have a more efficient

and direct way to notify users about errors, problems, consumption and manufacturer information of printing device consumables.

A user may be informed when a marking material in a CRU is at a level too low to confidently print any further jobs. Once a user is signaled of a problem, a further problem is that, at a time of recognized need, the user may not have the necessary information readily in their possession in order to make a decision with respect to a replacement CRU. For example, the user may not possess the manufacturer's recommended CRU replacement model, the user may not know where to order the CRU, the user may not have the CRU manufacturer or vendor(s) contact information, the user may not know how to remove and recycle the CRU, or the user may not know how to install the replacement CRU. Such beneficial information is most useful when a user is notified that a CRU will soon run out of a substance or when the CRU is at or near the end of its useful life. In view of these problems, the present invention proposes a method and system which provides a user with various useful information concerning the CRU in the form of a printed document. The method and system makes the CRU information available to the user at the source of the problem, and at an identified time of need in the printing machine. The information is provided in one convenient place, in the form of a printed document; Kurtz Page 1 Paragraph 3 & 4.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita, and Kurtz to arrive to the limitations of claim 1.

Regarding claim 2, Muto,Tabb Kinoshita in view of Kurtz taught the method of claim 1, as described above. Tabb also teaches further comprising: installing said printing device consumable in said printing device; and interfacing said printing device and said memory module (**Fig.1 element 1, & 100**). **(Tabb discloses the present invention relates to utilizing memory provided in a machine replaceable sub-assembly to be one medium of distribution for software code updates to that machine relating as to how that machine should use that replaceable sub-assembly. In one embodiment, there is provided a replaceable sub-assembly for use in a machine at various setpoints including a memory and further including upgraded executable instruction suitable for directing the machine to use the replaceable sub-assembly with different setpoints, where the upgraded executable instruction is stored in the memory. In this way, the replaceable sub-assembly becomes the medium for it's own or another's software updates; Abstract)**

6. Claims 7-16, 25-28, 41, 45-47, and 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto(US 2002/0116480) , and Tabb (US 6735399 B2) in view of Kinoshita(2003/0107762),

Regarding claim 7, Muto,Tabb in view of Kinoshita teaches a method for providing email messages for email alerts from a printing device(**Muto fig. 10**), **(Muto discloses the present invention has been developed to solve the above mentioned problems, and the first object of the present invention is to provide a data transfer process apparatus, a device, a network system, a data transfer method, and a storage**

medium capable of having the user who manages the device recognize the status of the device at an appropriate timing by transmitting by electronic mail the transmission data generated according to the message for the status information about the device based on the status change of the device and the destination information; Page 1 paragraph 10) said method comprising: storing email messages on a memory module; attaching said memory module to a printing device consumable; installing said printing device consumable with attached memory module in a printing device; ***(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is automatically connected to the machine control unit/CPU via a terminal block 32 on a part 33 of the machine 100; Column 4 lines 26-36)***

and interfacing said memory module with said printing device. ***(Tabb discloses Indeed, in one embodiment the software which is installed from the CRUM 30 to the CPU 41 and its memory 42 has nothing to do with the medium or media of distribution i.e. the the CRU 1; Column 6 lines 17-20)***

Mutto does not explicitly teach storing attaching said memory module to a printing device consumable; installing said printing device consumable with attached memory

module in a printing device; and interfacing said memory module with said printing device.

However Tabb does teach storing attaching said memory module to a printing device consumable; installing said printing device consumable with attached memory module in a printing device; and interfacing said memory module with said printing device.

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system to include the replaceable consumable printing device with memory of Tabb. One of ordinary skill in the art would have been motivated to make this modification in order to have a more efficient and direct way to make software upgrades to deal with errors, toner/printer problems, manufacturer information changes of both printer and printing device consumables, without having to make a physical visit by a technician.

Tabb discloses many machines have replaceable sub-assemblies. Printing machines for example may have a number of replaceable sub-assemblies such as a fuser print cartridge, a toner cartridge, or an automatic document handler. These subassemblies may be arranged as a unit called a cartridge, and if intended for replacement by the customer or machine owner, may be referred to as a CRU. Examples of a CRU may include a printer cartridge, toner cartridge, or transfer assembly unit. It may be desirable for a CRU design to vary over the course of time due to manufacturing changes or to solve post launch problems with either: the machine, the CRU, or a CRU and machine interaction. Further, design optimizations may be recognized subsequent to design launch and machine sale, that a relatively simple code update might realize. However,

solving these problems, or providing optimization updates, generally requires a field call; Column 1 lines 41-47)

Neither Muto or Tabb specifically teaches emails being stored on a memory module.

However Kinoshita teaches emails being stored on memory. **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)**

Further it would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system and Tab's replaceable consumable printing device with memory to include Kinoshita's Printing system. One of ordinary skill in the art would have been motivated to make this modification in order to show emails can be stored in a removable/remote memory and transmitting email to a printer's memory. This will allow for easier printing of emails at any given time.

Therefore, it would be obvious to combine Muto, Tabb, and Kinoshita to arrive to the limitations of claim 7.

Regarding claim 8, Muto, Tabb and Kinoshita taught the method of claim 7, as described above. Tabb further teaches wherein said printing device consumable comprises a toner cartridge. ***(Tabb discloses examples of a CRU may include a printer cartridge, toner cartridge, or transfer assembly unit; Column 1 lines 38-40)***

Regarding claim 9, Muto, Tabb and Kinoshita taught the method of claim 7, as described above. Kinoshita also teaches further comprising uploading said email messages from said memory module to a memory unit of said printing device. ***(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating***

section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)

Regarding claim 10, Muto, Tabb and Kinoshita taught the method of claim 9, as described above. Muto further teaches comprising sending an email alert to one or more recipients using one of said email messages indicative of a condition of said printing device. *(Muto fig.10, fig, 11)*

Regarding claim 11, Muto, Tabb and Kinoshita taught the method of claim 10, as described above. Muto further teaches wherein said email messages comprise fields for containing printing device information. *(Muto discloses in FIG. 10, reference numeral 1001 denotes a mail header portion, that is, a data portion containing the transmission information about electronic mail, and comprises the information indicated by 1002 to 1005; Page 5 paragraph 65 lines 5-8)*

Regarding claim 12, Muto, Tabb and Kinoshita taught the method of claim 11, as described above. Muto further teaches wherein said printing device information comprises an identification of said printing device. *(Muto discloses in FIG. 10, reference numeral 1001 denotes a mail header portion, that is, a data portion containing the transmission information about electronic mail, and comprises the information indicated by 1002 to 1005; Page 5 paragraph 65 lines 5-8)*

Regarding claim 13, Muto, Tabb and Kinoshita taught the method of claim 11, as described above. Muto further teaches wherein said printing device information comprises a quantification of a remaining amount of a consumable. ***(Muto discloses FIG. 6 shows an example of the status message data showing each status of the device stored in the device control unit of the device shown in FIG. 1 according to the first embodiment of the present invention; Page 20 paragraph 20)***

Regarding claim 14, Muto, Tabb and Kinoshita taught the method of claim 11, as described above. Wherein said email message comprises an order for additional consumables sent to a provider of said consumables.

Muto, Tabb and Kinoshita do not explicitly teach wherein said email message comprises an order for additional consumables sent to a provider of said consumables.

However Kurtz does teach wherein said email message comprises an order for additional consumables sent to a provider of said consumables.

(Kurtz discloses For machines connected to a PC/network, at S310, an electronic e-mail message is sent to a user(s) indicating the predetermined information, for example, a message indicating low CRU life for a particular CRU along with information for ordering a replacement CRU including identification number and contact information including vendor(s), manufacturer(s), or third parties including their respective address, phone number, facsimile number, e-mail address, Uniform Resource Locator (URL) address, and combinations thereof; Page 3 paragraph 31 lines 1-10)

Regarding claim 15, Muto, Tabb and Kinoshita taught the method of claim 10, as described above. Muto also teaches wherein said sending an email alert comprises: monitoring operation of said printing device for occurrence of a trigger event; inserting said printing device information into said email messages; and sending said email alert using said email messages in response to said trigger event, wherein said email messages are specific to the trigger event detected. ***(Muto discloses FIG. 10 shows an example of transmitting electronic mail when an error occurs in the device generated by the network control unit of the device shown in FIG. 7 according to the first and third embodiments of the present invention; Page 2 Paragraph 24)***

Regarding claim 16, Muto, Tabb and Kinoshita taught the method of claim 15, as described above. Muto further teaches comprising receiving user input to specify a list of trigger events. ***(Muto fig. 8, & 9)***

Regarding claim 25, Muto, Tabb and Kinoshita taught the method of claim 9, as described above. Muto further teaches wherein said uploading said email message elements to printing device memory comprises: determining if previous email message elements already exist in said printing device memory; ***(Mutu discloses the mail notification setting information obtaining unit 1108 obtains the mail notification setting information set by the client apparatus 1301 through the network interface 1114. The mail notification setting information registration unit 1109 updates the***

mail notification setting information stored in the mail notification setting information memory 1107 according to the mail notification setting information obtained by the mail notification setting information obtaining unit 1108. In addition, if a mail notification condition that, for example, a status notification is issued only when an error occurs is changed in the above mentioned mail notification setting information, then the device status notification condition setting unit 1110 sets a status notification condition of the device 1101 notified by the device control unit 1102; Page 6 paragraph 85) and uploading said email message elements to printing device memory if no previous email message elements are found. *(Mutto discloses in the network control unit 103, the device status change detection unit 107 obtains the information (status information) about the status of the device 101 from the device control unit 102. The mail message generation unit 108 generates transmission data to be transmitted to the client apparatus 301 according to the information about the status of the device 101 obtained from the device status change detection unit 107, and the notification information (destination information). Furthermore, the mail message generation unit 108 sets the reply destination address of the electronic mail in the above mentioned transmission data. The reply destination address refers to the address to which an answer is transmitted in response to the electronic mail; Page 3 paragraph 41, 43)*

Regarding claim 26, Muto, Tabb and Kinoshita taught the method of claim 9, as

described above. Muto further teaches wherein said uploading said email message elements to printing device memory comprises: determining if previous email messages already exist in said memory unit of said printing device; and performing a replacement action if previous email message elements are found. ***(Muto discloses in the network control unit 103, the device status change detection unit 107 obtains the information (status information) about the status of the device 101 from the device control unit 102. The mail message generation unit 108 generates transmission data to be transmitted to the client apparatus 301 according to the information about the status of the device 101 obtained from the device status change detection unit 107, and the notification information (destination information). Furthermore, the mail message generation unit 108 sets the reply destination address of the electronic mail in the above mentioned transmission data. The reply destination address refers to the address to which an answer is transmitted in response to the electronic mail; Page 3 paragraph 41, 43)***

Regarding claim 27, Muto, Tabb and Kinoshita taught the method of claim 26, as described above. Muto further teaches wherein said performing a replacement action comprises replacing one or more of said previous email messages with one or more email messages from said memory module. ***(Muto discloses in step S1502, the network control unit 1103 compares the contents between the received mail notification setting information and the mail notification setting information stored in the mail notification setting information memory 1107 in the network***

control unit 1103. If it is determined that there is a change in the mail notification setting information, control is passed to step S1503. If it is determined that there is no change in the mail notification setting information, then the process terminates; Page 7 Paragraph 101)

Regarding claim 28, Muto, Tabb and Kinoshita teaches the method of claim 26, as described above. Muto further teaches wherein said performing a replacement action comprises adding one or more of said email messages from said memory module to said previous email messages. ***(Muto discloses step S1502, the network control unit 1103 compares the contents between the received mail notification setting information and the mail notification setting information stored in the mail notification setting information memory 1107 in the network control unit 1103. If it is determined that there is a change in the mail notification setting information, control is passed to step S1503. If it is determined that there is no change in the mail notification setting information, then the process terminates; Page 7 Paragraph 101)***

Regarding claim 47, Muto teaches a printing device comprising: a printing device controller with an email engine ***(Muto fig. 1 element 103 & element 108)*** for using email messages provided by a memory module attached to a printing device consumable;

a printing device memory storing said email engine; and a printing device interface disposed and configured to interface and communicate with said memory module attached to a printing device consumable supplied to said printing device;

wherein said printing device controller is configured to access email messages in said memory module attached to said consumable, load said email messages into said printing device memory and selectively transmit said email messages using said email engine.

(Muto discloses additionally, according to the above mentioned conventional technology, when the status of the device is limited to a predetermined state and notified of by electronic mail, it is necessary to set a notification condition for each status of the device, thereby introducing the problem that the setting load of the user becomes heavier with an increasing number of types of status; Page 1 paragraph 8. Muto further discloses FIG. 10 shows an example of transmitting electronic mail when an error occurs in the device generated by the network control unit of the device shown in FIG. 7 according to the first and third embodiments of the present invention; Page 2 Paragraph 24)

Muto does not explicitly teach a memory module attached to a printing device consumable; a printing device memory storing said email engine; and a printing device interface disposed and configured to interface and communicate with said memory module attached to a printing device consumable supplied to said printing device.

However Tabb does teach a memory module attached to a printing device consumable; a printing device memory storing said email engine; and a printing device

interface disposed and configured to interface and communicate with said memory module attached to a printing device consumable supplied to said printing device. .

(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is automatically connected to the machine control unit/CPU via a terminal block 32 on a part 33 of the machine 100; Column 4 lines 26-36)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system to include the replaceable consumable printing device with memory of Tabb. One of ordinary skill in the art would have been motivated to make this modification in order to have a more efficient and direct way to make software upgrades to deal with errors, toner/printer problems, manufacturer information changes of both printer and printing device consumables, without having to make a physical visit by a technician.

Tabb discloses many machines have replaceable sub-assemblies. Printing machines for example may have a number of replaceable sub-assemblies such as a fuser print cartridge, a toner cartridge, or an automatic document handler. These subassemblies may be arranged as a unit called a cartridge, and if intended for replacement by the

customer or machine owner, may be referred to as a CRU. Examples of a CRU may include a printer cartridge, toner cartridge, or transfer assembly unit. It may be desirable for a CRU design to vary over the course of time due to manufacturing changes or to solve post launch problems with either: the machine, the CRU, or a CRU and machine interaction. Further, design optimizations may be recognized subsequent to design launch and machine sale, that a relatively simple code update might realize. However, solving these problems, or providing optimization updates, generally requires a field call; Column 1 lines 41-47)

Neither Mutto or Tabb specifically teaches emails being stored on a memory module and loaded onto printing device memory.

However Kinoshita teaches emails being stored on a memory module and loaded onto printing device memory. **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails**

downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)

Further it would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system and Tab's replaceable consumable printing device with memory to include Kinoshita's Printing system. One of ordinary skill in the art would have been motivated to make this modification in order to show emails can be stored in a removable/remote memory and transmitting email to a printer's memory. This will allows for easier printing of emails at any given time.

Therefore, it would be obvious to combine Muto, Tabb, and Kinoshita to arrive to the limitations of claim 47.

Regarding claim 51, Muto, Tabb and Kinoshita taught the printing device of claim 47, as described above. Kinoshita further teaches wherein said printing device interface comprises a wired interface. . **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-**

mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)

Regarding claim 52, Muto, Tabb and Kinoshita taught the printing device of claim 47, as described above. Further comprising a user interface for controlling said printing device. *(Muto discloses in the network control unit 1103, the mail notification setting screen generation unit 1105 generates GUI (Graphical User Interface) data displayable on the GUI of the WEB browser, etc. operating in the client apparatus 1301. The GUI data generated by the mail notification setting screen generation unit 1105 is transmitted to the client apparatus 1301 through the network interface 1114, thereby providing a GUI for setting mail notification as shown in FIG. 13 in the client apparatus 1301. The WEB browser of the client apparatus 1301 interprets the received GUI data, and displays a screen as shown in FIG. 13. Thus, the user can set mail notification without an application program exclusively used to set mail notification; Column 6 paragraph 82)*

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto, Tabb, Kinoshita in view of Narushima (US Patent 6831755).

Regarding claim 29, Muto, Tabb and Kinoshita taught the method of claim 26, as described above. Wherein said performing a replacement action requires an administration setting, password, or other form of authentication.

Muto, Tabb, Kinoshita do not explicitly teach wherein said performing a replacement action requires an administration setting, password, or other form of authentication. However Narushima teaches wherein said performing a replacement action requires an administration setting, password, or other form of authentication.

(Narushima discloses a step of checking the password before updating/rewriting software program column 17 lines 12-25)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb and Kinoshita to include Narushima. One of ordinary skill in the art would have been motivated to make this modification in order to have authorized personnel making the updates.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita and Narushima to arrive to the limitations of claim 29.

8. Claims 41, 45, & 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabb (US 6735399 B2) in view of Kinoshita(2003/0107762).

Regarding claim 41, Tab teaches discloses a consumable for use with a printing device, said consumable comprising: a printing device consumable; a memory module attached to said printing device consumable; ***(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is automatically connected to the machine control unit/CPU via a terminal block 32 on a part 33 of the machine 100; Column 4 lines 26-36)***

Tabb does not specifically teach emails being stored on a memory module.

However Kinoshita teaches emails being stored on memory. ***(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the***

memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)

Further it would be obvious to a person of ordinary skill in the art at the time of the invention to modify the Muto's email data transfer system and Tab's replaceable consumable printing device with memory to include Kinoshita's Printing system. One of ordinary skill in the art would have been motivated to make this modification in order to show emails can be stored in a removable/remote memory and transmitting email to a printer's memory. This will allows for easier printing of emails at any given time.

Therefore, it would be obvious to combine Tabb, and Kinoshita to arrive to the limitations of claim 41.

Regarding claim 45, Tabb in view of Kinoshita taught the consumable of claim 41, as described above. Tabb further comprising a wired interface for said memory module for interfacing and communicating with a printing device. ***(Tabb discloses the CRU 1, as already mentioned, is removable from the machine 100 and can be replaced by another CRU 1 if any of the process elements located therein begin to deteriorate. The CRU 1 has a memory chip or memory 30, as shown in FIG. 3, in the form of an EEPROM (Electrically Erasable Programmable Read Only Memory) mounted in***

the top cover of the CRU 1. Contact pads 31 are provided on the memory chip 30 so that, when the CRU 1 is inserted into the machine 100, the memory chip 30 is automatically connected to the machine control unit/CPU via a terminal block 32 on a part 33 of the machine 100; Column 4 lines 26-36)

Regarding claim 46, Tabb in view of Kinoshita taught the consumable of claim 41, as described above. Kininoshita also teaches further comprising an email message interface stored on said memory module which, when uploaded to a printing device, allows access and use of said email messages on said memory module. **(Kinoshita discloses the memory section 5A stores at least data needed to download an e-mail addressed to the user from the mail server 60. Data needed to download an e-mail, as shown in FIG. 9B, consists of data representing connection information for connecting the printer 40 to the mail server 60, a user ID, a password, an e-mail address and so forth; Page 8 paragraph 229. The index generating section 44A accesses the mail server 60 for which the user has made a contract by using data read from the memory card 5 by the reading apparatus 45. The index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53. The index generating section 44A generates data of the index screen which shows the index of an "unopened" e-mail in those e-mails downloaded. The index generating section 44A then sends the generated data of the index screen to the panel controller 43; Page 9 Paragraph 238 & 239.)**

9. Claim 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Tabb, Kinoshita in view of Hatasa (US 2003/0214546).

Regarding claim 42, Tabb and Kinoshita taught the consumable of claim 41, as described above. Comprising a wireless interface for said memory module for interfacing and communicating with a printing device.

Tabb and Kinoshita do not explicitly teach comprising a wireless interface for said memory module for interfacing and communicating with a printing device.

However Hatasa teaches comprising a wireless interface for said memory module for interfacing and communicating with a printing device. ***(Hatasa discloses referring to FIG. 8, in the bottom portion of the internal space of the printer main assembly 201, there is disposed a secondary scan mechanism (unshown) comprising a feed roller 204, a driving motor 205, etc. A sheet of printing paper P is conveyed frontward so that it opposes the ink jet head 203 from underneath; Page 4 Paragraph 64. Hatasa also discloses further, in the top portion of the internal space of the printer main assembly 210, there is disposed a single communication unit 206, as both a power supplying means and a wireless communicating means. Not only does this communication unit 206 electromagnetically induce electric current in the corresponding induction coil 138 of the ink cartridge 100, but also it wirelessly exchanges predetermined types***

of information with the first portion 132 of the radio antenna 131 of the ink cartridge 100. However, there a four ink cartridges 100 different in type, which are moved in the direction in which they are aligned as described above. Therefore, the single communication unit 206 wirelessly communicates with each of the four ink cartridges 100 as each ink cartridge 100 is moved into the area in which the communication unit 206 falls into communication range RS of each ink cartridge 100, as shown in FIG. 9.; Page 4 paragraph 64)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Tabb, Kinoshita, to include the wireless interface of Hatasa. One of ordinary skill in the art would have been motivated to make this modification in order to eliminate the fear that the data communication between the printer main assembly 201 and the ink container 100 might be unsatisfactory due to the electrical contact errors between them traceable to the ink 104; Hatasa Page 5 Paragraph 84.

Therefore, it would be obvious to combine Tabb, Kinoshita and Hatasa to arrive to the limitations of claim 42.

10. Claims 43 & 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabb (US 6735399 B2), Kinoshita(2003/0107762) , Hatasa (US 2003/0214546) in view of Richards (US Patent 6532351).

Regarding claim 43, Tabb, Kinoshita, Hatasa taught the consumable of claim 42, as

described above. Tabb, Kinoshita, Hatasa do not specifically teach wherein said wireless interface comprises a radio frequency interface.

However, Richards teaches wherein said wireless interface comprises a radio frequency interface. **(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF;**

Column 5 lines 10-32)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Tabb, Kinoshita, and Hatasa's wireless consumable interface to include an infrared wireless communication interface of Richard. One of ordinary skill in the art would have been motivated to make this modification in order to a verity of different Wireless interfaces which are well known.

Therefore, it would be obvious to combine Tabba, Kinoshita, Hatasa and Richards to arrive to the limitations of claim 43.

Regarding claim 44, Tabb, Kinoshita, Hatasa, and Richards taught the consumable of claim 42, as described above. Richards teaches wherein said wireless interface comprises an infrared interface.

(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF; Column 5 lines 10-32)

11. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muto (US 2002/0116480), Tabb (US 6735399 B2), Kinoshita (2003/0107762) in view of Hatasa (US 2003/0214546).

Regarding claim 48, Muto, Tabb and Kinoshita taught the printing device of claim 47, as described above. Further comprising a wireless interface for said memory module for interfacing and communicating with a printing device.

Although Muto, Tabb and Kinoshita do not teach comprising a wireless interface for said memory module for interfacing and communicating with a printing device.

However Hatasa teaches comprising a wireless interface for said memory module for interfacing and communicating with a printing device. ***(Hatasa discloses referring to FIG. 8, in the bottom portion of the internal space of the printer main assembly 201, there is disposed a secondary scan mechanism (unshown) comprising a feed roller 204, a driving motor 205, etc. A sheet of printing paper P is conveyed frontward so that it opposes the ink jet head 203 from underneath; Page 4 paragraph 64. Hatasa also discloses further, in the top portion of the internal space of the printer main assembly 210, there is disposed a single communication unit 206, as both a power supplying means and a wireless communicating means. Not only does this communication unit 206 electromagnetically induce electric current in the corresponding induction coil 138 of the ink cartridge 100, but also it wirelessly exchanges predetermined types of information with the first portion 132 of the radio antenna 131 of the ink***

cartridge 100. However, there a four ink cartridges 100 different in type, which are moved in the direction in which they are aligned as described above. Therefore, the single communication unit 206 wirelessly communicates with each of the four ink cartridges 100 as each ink cartridge 100 is moved into the area in which the communication unit 206 falls into communication range RS of each ink cartridge 100, as shown in FIG. 9.; Page 4 paragraph 64)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb and Kinoshita to include the wireless interface of Hatasa. One of ordinary skill in the art would have been motivated to make this modification in order to eliminate the fear that the data communication between the printer main assembly 201 and the ink container 100 might be unsatisfactory due to the electrical contact errors between them traceable to the ink 104; Hatasa Page 5 Paragraph 84.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita and Hatasa to arrive to the limitations of claim 48.

12. Regarding Claims 49 & 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muto, (US 2002/0116480) Tabb (US 6735399), Kinoshita(2003/0107762) , Hatasa (US 2003/0214546) in view of Richards (US Patent 6532351

Regarding claim 49, Muto, Tabb, Kinoshita and Hatasa taught the printing device of

claim 48, as described above. They do not teach wherein said wireless interface comprises a radio frequency interface.

However, Richards teaches wherein said wireless interface comprises a radio frequency interface. **(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF;**

Column 5 lines 10-32)

It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Muto, Tabb, Kinoshita and Hatasa's wireless consumable interface to include an infrared wireless communication interface of Richards. One of ordinary skill in the art would have been motivated to make this modification in order to a verity of different Wireless interfaces which are well known.

Therefore, it would be obvious to combine Muto, Tabb, Kinoshita, Hatasa and Richards to arrive to the limitations of claim 49.

Regarding claim 50, Muto, Tabb, Kinoshita and Hatasa taught the printing device of claim 48, as described above. Richards for the same motivation as claim 49, further teaches wherein said wireless interface comprises an infrared interface. **(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF; Column 5 lines 10-32)**

(10) Response to Argument

Examiner summarizes the various points raised by the appellant and addresses them individually.

(A)Appellant Argument regarding claims 1 & 2:

Applicant makes argument that Tabb teaches a Customer Replaceable Unit (CRU) or print cartridge having a memory that stores software code upgrades. The print cartridge provides software updates to the CPU of the printer. Nowhere does Tabb teach or even suggest that the printer cartridge or CRU stores email messages. Instead Tabb teaches the print cartridge or CRU stores software code updates.

Kinoshita teaches a server that information about plural printers and provides this information to a user of a computer. The user then sends an e-mail with an attached file to one of the printers (the e-mail transmits from the user's computer, through an email server, and to the printer). The printer then prints the file attached to the received e-mail. The printer includes a memory card for storing the received e-mail and attached file. This memory card can also store data representing connection information for connection information for connecting the printer to the mail server, a user ID, a password, an e-mail address. The memory card of Kinoshita is not attached to a printing device consumable, such as a printer cartridge. NO printing device consumable in Kinoshita stores email messages.

Kurtz finally teaches a CRU (such as a print cartridge) of a printer or photocopier should be replaced. The CRU includes a memory (CRUM) that stores a number of images (number of copies) that CRU can make before running out of ink or toner. When the number of images remaining on the CRU reaches a preprogrammed limit, a

user is notified with a printed document at the printing machine. Nowhere does Kurz teach or even suggest that the CRUM stores "email messages". Instead, Kurtz focuses on the fact the CRUM stores "stores a preset number of total images for the CRU" see paragraph [0020].

Applicant further makes argument that claim 1 recites "the email messages are uploaded from the memory module of a printing device consumable to a printing device".

Kinoshita teaches a server that stores information about plural printers and provides this information to a user of a computer. The user then sends an e-mail with an attached file to the received e-mail. Kinoshita further teaches that the printer includes a memory card for storing the received e-mail attached file. This memory card can store data representing connection information for connecting the printer to the mail server, a user ID, a password, an e-mail address (see Kinoshita at paragraph [229]). The memory card of Kinoshita is not attached to a printing device consumable, such as a print cartridge.

Finally Applicant states that the combination of Muto in view of Tabb and Kinoshita teaches a print cartridge attachable to a printer. **These combination fails to teach or even suggest that the print cartridge stores email messages, is the main argument.**

In Response:

Examiner would like to clarify position regarding the applicant's argument, the rejection does not teach Printing device consumable storing email messages. Also of the argument that the combination of Muto, Tabb, and Kinoshita fails to teach or even suggest that the print cartridge stores email messages nor does it teach email messages are uploaded from the memory module of a printing device consumable to a printing device.

As stated above by applicant, Kurtz does not teach store the actual email in the memory. However Kurtz does have a printer cartridge with a memory module attached to it. This memory module can store code which is a used to determine the usage or problems of the printer cartridge. *Kurtz discloses a memory storage device functionally associated with the container, the memory storage device including data about the customer replaceable unit; transferring the data in the memory storage device to the printing machine; and upon reaching a threshold volume of substance in the container, printing a human readable document, the human readable document indicating: (a) at least one of a present and future need for a replacement replaceable unit; Paragraph 10. lines 9-16.* The memory stores product information sent through the printer to request a replacement cartridge. The printer then sends an email message out to contact user or personnel. *Kurtz discloses the predetermined information allows the user to solve a problem with respect to the CRU during the life of the CRU. In addition, an electronic e-mail message may be sent to the user, to a User Interface (UI), or to a display window to supplement the printed document; Paragraph 22 lines 14-17.* While Kurtz teaches a printer cartridge with a memory module able to store data, Kurtz

does not explicitly teach the memory of the printer cartridge storing an email. It would be fairly obvious to have a memory module storing email to transmit it to a printer. As explained in the office action Kinoshita teaches email stored in memory which is loaded to a printer. *Kinoshita discloses the printer 40 is connected to the mail servers 60 via the public telephone network 2. The printer 40 downloads an e-mail addressed to a user from a predetermined mail server 60 and prints the e-mail; Paragraph 218.* So based on these references it would be understood how these references teaches these limitations.

Further when looking at the specification consumable is defined to mean any material consumed by a printing device to produce hardcopy document. While applicant keeps on pointing towards the definition being a printer cartridge or toner. It can also be a stack or supply of print media. Consumable can also include toner, colorant, ink, print fluid. Examiner is not sure how a memory can be attached to these recited definitions such as ink, etc. Please see specification page 2 paragraph 005 and 006. Thus the claim language or the specification would need to be updated as well.

(B) Argument regarding claims 7-16 and 25-28

Regarding claims 7 & 9, examiner summarizes the arguments by applicant to be, no printing device consumable in Kinoshita stores email messages. Further the combination of Muto, Tabb and Kinoshita fails to teach or even suggest that the print cartridge stores email messages.

In response:

Examiner would like to clarify position regarding the applicant's argument, the rejection does not teach Printing device consumable storing email messages.

Examiner points out again that applicant still points to consumable as being a printer cartridge. It is not stated in the claim that the consumable is a printing cartridge or toner. As stated previously, in the specifications consumable may be defined as ink, colorant, printer fluid. Please see specification page 2 paragraph 005 and 006. If this being the case, there could not be a memory module attached to this printing device consumable.

Even with this being the case, explanation is still based on the premise that the consumable is a printer cartridge.

Tabb does teach a printer cartridge with a memory module attached to it. This memory module can store code which is used to determine the software updates for the purpose of utilization. *Tabb discloses in particular, the present invention relates to a method for operating a printer apparatus comprising the step of providing a customer replaceable unit separable from the printer apparatus, the customer replaceable unit further comprising a memory, the memory having stored within a software code upgrade of executable instructions relating to the utilization of the customer replaceable unit;* Column 2 lines 57-63. As explained in the office action Kinoshita teaches email stored in memory which is loaded to a printer. *Kinoshita discloses the printer 40 is connected to the mail servers 60 via the public telephone network 2. The printer 40 downloads an*

e-mail addressed to a user from a predetermined mail server 60 and prints the e-mail; Paragraph 217. It would be fairly obvious to have a memory module store the email and transmit it to a printer. Kinoshita finally discloses the index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53; Page 9 paragraph 238 lines 4-6. This explains uploading said email messages from said memory module to a memory unit of said printing device, recited in claim 9.

(C) Argument regarding claims 41 and 45-46

Examiner summarizes the arguments by applicant to be, no printing device consumable in Kinoshita stores email messages. Further the combination of Tabb and Kinoshita fails to teach or even suggest that the print cartridge stores email messages.

Applicant points to consumable as being a print cartridge, when it is not defined in claim 41 as so. Specification explains that consumable may be defined as ink, colorant, printer fluid. Please see specification page 2 paragraph 005 and 006. If this being the case, there could not be a memory module attached to this printing device consumable.

Even with this being the case, explanation is still based on the premise that the consumable is a printer cartridge.

Tabb does teach a printer cartridge with a memory module attached to it. This memory module can store code which is used to determine the software updates for the purpose of utilization. *Tabb discloses in particular, the present invention relates to a method for operating a printer apparatus comprising the step of providing a customer replaceable unit separable from the printer apparatus, the customer replaceable unit further comprising a memory, the memory having stored within a software code upgrade of executable instructions relating to the utilization of the customer replaceable unit;* Column 2 lines 57-63. As explained in the office action Kinoshita teaches email stored in memory. *Kinoshita discloses the printer 40 is connected to the mail servers 60 via the public telephone network 2. The printer 40 downloads an e-mail addressed to a user from a predetermined mail server 60 and prints the e-mail; Paragraph 217. . Kinoshita finally discloses the index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53; Page 9 paragraph 238 lines 4-6.* It would be fairly obvious to have a memory module store the email of a printer cartridge. The ability to store emails or other data/code on a printing cartridge in the instance of Tabb for the purpose of being able to instruct vendors or users for notification of running out of capacity in the printer toner/cartridge or a problem with the printer toner/cartridge.

(D) Argument regarding claims 47 and 51-53

Examiner summarizes the arguments by applicant to be, there is no printing device consumable in Kinoshita which stores email messages. Further the combination of Muto, Tabb and Kinoshita fails to teach or even suggest that the printer access email messages stored in the print cartridge or that the printer loads emails from the print cartridge to the printer.

In response:

Examiner would like to clarify position regarding the applicant's argument, the rejection does not teach that the printer access email messages stored in the print cartridge or that the printer loads emails from the print cartridge to the printer.

Applicant points to consumable as being a print cartridge, when it is not defined in claim 47 as so. Specification explains that consumable may be defined as ink, colorant, printer fluid. If this being the case, there could not be a memory module attached to this printing device consumable.

Tabb does teach a printer cartridge with a memory module attached to it. This memory module can store code which is used to determine the software updates for the purpose of utilization. *Tabb discloses in particular, the present invention relates to a method for operating a printer apparatus comprising the step of providing a customer replaceable unit separable from the printer apparatus, the customer replaceable unit further comprising a memory, the memory having stored within a software code upgrade of executable instructions relating to the utilization of the customer replaceable unit; Column 2 lines 57-63.* As explained in the office action Kinoshita teaches email stored

in memory which is loaded to a printer. *Kinoshita discloses the printer 40 is connected to the mail servers 60 via the public telephone network 2. The printer 40 downloads an e-mail addressed to a user from a predetermined mail server 60 and prints the e-mail; Paragraph 217.* It would be fairly obvious to have a memory module store the email and transmit it to a printer. *Kinoshita finally discloses the index generating section 44A downloads e-mails addressed to the user from the accessed mail server 60 and stores them in the mail buffer 53; Page 9 paragraph 238 lines 4-6.* This explains uploading said email messages from said memory module to a memory unit of said printing device, recited in claim 47. The ability to store emails or other data/code on a printing cartridge in the instance of Tabb for the purpose of being able to instruct vendors or users for notification of running out of capacity in the printer toner/cartridge or a problem with the printer toner/cartridge.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Gerald Smarth/

Examiner, Art Unit 2446

/Jeffrey Pwu/

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